Investigative Techniques Manual

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California Environmental Protection Agency
State of California
Department of Pesticide Regulation
Pesticide Enforcement Branch

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CAL EPA
DEPARTMENT OF PESTICIDE REGULATION
ENFORCEMENT BRANCH

INVESTIGATIVE TECHNIQUES MANUAL

INTRODUCTION

This manual is intended for use by county agricultural inspectors to be taken along when investigating a pesticide-related episode. It is designed to help you think through the process of investigations, to aid you in planning for any possible enforcement action, and to assemble your resources effectively. Although sampling is an integral part of investigating, it is not extensively covered here. Instead, you are referred to the **Pesticide Enforcement Sampling Manual** for procedures to follow and equipment to use. Nor is this manual intended to replace the C Section of your **PUE Manual**, which addresses Worker Health and Safety Branch needs. Finally, we want you to write a complete, concise report that can be understood by someone who is not familiar with the case. This point cannot be overemphasized. Investigators should write a complete report realizing that the deputy, the county agricultural commissioner (CAC), and the hearing officer were not there and some of them may not be familiar with the area. Your reports are also closely scrutinized by the Legislature, other governmental agencies, and special interest groups, reflecting vastly different points of view.

There are three purposes to investigations. One is to determine if there was a violation. This is the emphasis of the Pesticide Enforcement Branch. Another is to find out what happened in order to assist the Department of Pesticide Regulation's (DPR) Worker Health and Safety (WH&S) Branch in the evaluation of the pesticides involved. When writing your report, it helps to bear in mind what

information is critical for enforcement action and what information is critical to WH&S for their evaluation. WH&S compiles records of all illnesses and injuries related to pesticide exposure to monitor the ultimate effectiveness of regulations of pesticide use. This process is part of the checks and balances used in California to ensure safe working conditions, to protect the environment, and to ensure food safety. Investigations are also required to respond to complaints. A negative finding is just as important as a positive finding and should be carefully reported.

BACKGROUND

What do you need to know before you go out the door? Before you can become an effective pesticide episode investigator, you need to know some backgound information. Is the episode pesticide related? What is your jurisdiction? What is your authority? What is the policy? Is it a priority episode? What resources are needed?

WHAT IS A PESTICIDE?

The simple, practical answer is "Anything that is registered as a pesticide." But let us look further into the question. The long answer is trickier. First of all, "pesticide" is defined:

CFAC 11404

"Pesticide" means any economic poison, as defined in section 12753.

Next "economic poison" is defined.

CFAC 12753 Economic Poison

"Economic poison" includes any of the following:

(a) Any spray adjuvant.

(b) Any substance, or mixture of substances, that is intended to be used for defoliating plants; regulating plant growth; or for preventing, destroying, repelling, or mitigating any pest, as defined in section 12754.5, which may infest, or be detrimental to, vegetation, man, animals, or households; or be present in any agricultural or nonagricultural environment whatsoever.

Within this definition are some key words and phrases that are themselves defined in later sections. These are "spray adjuvant," "intended to be used," and "pest." You should also be familiar with the definition of an anti-microbial. This definition can be found in ENF 94-41.

Just what is, and what is not, a spray adjuvant?

CFAC 12758 Spray Adjuvant

"Spray adjuvant" means any wetting agent, spreading agent, deposit builder, adhesive, emulsifying agent, deflocculating agent, water modifier, or similar agent, with or without toxic qualities of its own, that is intended to be used with another economic poison as an aid to the application or effect of the other economic poison, and sold in a package that is separate from that of the economic poison other than a spray adjuvant with which it is to be used.

The next question is the meaning of "intended to be used." Whose intent is addressed and what is it they intend to use?

3CCR 6145 Intended to be used.

A substance is considered to be "intended to be used," as the phrase is used in sections 12753 and 12758 of the Food and Agricultural Code, and thus be an economic poison requiring registration, when:

(a) A person who distributes or sells the substance claims, states, or implies, by labeling or otherwise, that:

(1) the substance, either by itself or in combination with any other substance, can or should be used as an economic poison; or
(2) the substance consists of or contains an active ingredient and can be used to manufacture an economic poison; or

(b) A person who distributes or sells the substance has actual or constructive knowledge that the substance will be used, or is intended by the user to be used as an economic poison; or

(c) The substance consists of or contains one or more active ingredients and has no significant commercially valuable use as distributed or sold other than:

(1) use as an economic poison, by itself or in combination with any other substance; or
(2) use in the manufacture of an economic poison.

The last of these definitions within a definition is for the word "pest." The notable exclusion here is for animal and human medicines.

CFAC 12754.5

"Pest" means any of the following that is, or is liable to become, dangerous or detrimental to the agricultural or nonagricultural environment of the State:

(a) Any insect, predatory animal, rodent, nematode, or weed.

(b) Any form of terrestrial, aquatic, or aerial plant or animal, virus, fungus, bacteria, or other microorganism (except viruses, fungi, bacteria, or other microorganisms on or in living man or other living animals).

(c) Anything that the Director of Food and Agriculture or the Director of Pesticide Regulation, by regulation, declares to be a pest.

Now let us turn to the codes that speak to registered and unregistered pesticides. First, a pesticide registered by the United States Environmental Protection Agency (U.S. EPA) must have a certificate of registration from the California Department of Pesticide Regulation before it can be sold in California.

CFAC 12811 Certificate of Registration

> *Every manufacturer of, importer of, or dealer in any economic poison, except a person who sells any raw material to a manufacturer of any economic poison; or a dealer or agent who sells any economic poison which has been registered by the manufacturer or wholesaler, shall obtain a certificate of registration from the department before the economic poison is offered for sale.*

Further, it is unlawful to manufacture an unregistered pesticide.

CFAC 12993

> *It is unlawful for any person to manufacture, deliver, or sell any economic poison or any substance or mixture of substances that is represented to be an economic poison; or to retail any formula for an economic poison in conjunction with the sale or gift of materials that are represented to be the essential ingredients necessary to constitute an economic poison, which is not registered pursuant to this chapter; or for which the registration has been suspended or canceled, except as provided in regulations adopted by the director or as provided in the notice or order of suspension or cancellation. This section, however, does not apply to any economic poison product of a registrant, which is manufactured solely for export outside this state and which is so exported.*

It is also illegal to possess an unregistered pesticide.

CFAC 12995 Unlawful to Possess

> *Except as provided in regulations adopted by the director, or as provided in the notice or order of suspension or cancellation, it is*

unlawful for any person, by himself or herself or through another, to possess or use any economic poison that is not registered pursuant to this chapter, or for which registration has been suspended.

The Code of Regulations also addresses unregistered products.

3CCR 6301 Unregistered Products.

(a) Section 12995 shall not apply to products which do not require registration pursuant to section 12811.

(b) Pesticide products whose registration has lapsed shall not be sold by the registrant, but may be possessed and sold by a dealer for two years after the last date of registration. If acquired while legally registered, or within two years after the date of last registration, such products may be possessed and used according to the directions on the label.

(c) Notwithstanding the provisions of (b), it is unlawful to possess or use any economic poison which has been cancelled or suspended pursuant to sections 12825, 12826, or 12827 of the Food and Agricultural Code or under FIFRA (7 U.S.C. section 136 et seq.), except as provided in such cancellation or suspension.

By now you should have a good idea of what is a pesticide and what is not a pesticide, and you will have noted that the distinction is not a simple one.

JURISDICTION

Obviously, if it is not a pesticide, we do not have jurisdiction; but remember that documenting that a pesticide was not involved is as important as showing the opposite. Agricultural Commissioners investigate use-related pesticide episodes. DPR conducts pesticide product quality investigations. DPR and the county agricultural commissioners (CACs) investigate residues in produce. CAL OSHA

investigates nonuse-related pesticide episodes such as those at manufacturing plants and wholesalers.

AUTHORITY

As an investigator, you should have the confidence of knowing that you have broad powers to investigate pesticide-related episodes. However, tact and discretion should be used. Remember that part of the function is to assess if there is a problem with the pesticide in question. It is important to gain the cooperation of the persons being investigated in this matter. Cooperation is best achieved with a professional attitude. Here are the code sections giving you your authority.

CFAC 11456(b)

The director may do all of the following:

(b) Enter upon any premises to inspect the premises or any plant, appliance, or thing which is on those premises.

3CCR 6140 Inspection Authority.

(a) The director or commissioner may, during business hours, or if necessary to ensure immediate compliance, at any other reasonable time enter and inspect, and/or sample any of the following or related items in order to determine compliance with the provisions of this chapter and Divisions 6 and 7 of the Food and Agricultural Code, which pertain to pesticides and pest control operations.

(1) Fields, areas, structures, and greenhouses where pesticides are handled, stored, or applied;
(2) Growing crops and harvested commodities;
(3) Equipment (including protective clothing and equipment) used to store, transport, or handle pesticides;

(4) Change areas and other facilities used by employees; and
(5) Pesticides and tank mixtures thereof.

(b) Each person responsible, pursuant to the provisions of this division and Divisions 6 and 7 of the Food and Agricultural Code which pertain to pesticides and pest control operations, for preparing and maintaining records shall make those records available to the director or commissioner during business hours upon demand of the director or commissioner. The required records include:

(1) records concerning work hours, training, and medical monitoring of employees;
(2) pest control recommendations, and pesticide use and operations records; and
(3) pesticide transaction, sales, and delivery records.

For structural purposes, your authority comes from the Business and Professions (B&P) Code.

B&P 8616.5 Inspections and Investigations.

(a) The county agricultural commissioner shall be the lead agency for inspections and routine investigations of pesticide use by the board licensees and registered companies. When a matter is referred to the board for action, the board shall be the lead agency and may require that the commissioner assist in any investigation.

(b) The board and the Director of Food and Agriculture shall jointly develop the list of the types of investigations to be conducted by the commissioner that may result in the suspension of a license or company registration; or the imposition of a fine, pursuant to section 8617; and the list of the types of violations that the commissioner shall refer to the board for disciplinary action.

(c) As used in subdivision (a), the term "routine investigations" means all investigations of pesticide misuse by a board licensee or registered company except (1) investigation of misuse incidents which are referred to the board for disciplinary action, or which are the basis for county actions to suspend or fine structural pest control licensees or registered companies in accordance with the lists promulgated pursuant to subdivision (b); or (2) any investigation performed by the county agricultural commissioner which has been requested by the board and involves exclusively a violation of this code.

B&P 8616.7 Inspections and Investigations by County Agricultural Commissioner.

When a county agricultural commissioner is acting, pursuant to section 8616.4, only the commissioner may conduct inspections and routine investigations pursuant to section 8616.5 and take disciplinary action pursuant to section 8617. Except as otherwise provided, nothing in this section shall be construed as limiting or excluding the assistance provided to the board by the Division of Investigation under sections 155 and 159.5 other than by board personnel.

Restricted Materials Permit Language

The language on the Restricted Materials permit, which the grower signed, can also be helpful in overcoming some resistance.

I (the permittee) authorize inspection at all reasonable times and whenever an emergency exists, by the Department of Pesticide Regulation or the County Department of Agriculture of all areas treated or to be treated; storage facilities for pesticides or emptied containers; and equipment used or to be used in the treatment.

Care should be taken, especially in personal residences. "When in doubt, get out" is a good motto if told to leave. The commissioner will decide on further action in these types of cases.

FURTHER AUTHORITY

CFAC 12999.5 Agricultural Civil Penalties.

(a) In lieu of civil prosecution by the director, the commissioner may levy a civil penalty against a person violating Division 6 (commencing with section 11401), Article 10 (commencing with section 12971) or Article 10.5 (commencing with section 12980) of this chapter; section 12995, Article 1 (commencing with section 14001) of Chapter 3; or a regulation adopted pursuant to any of these provisions, of not more than one thousand dollars ($1,000) for each violation.....

B&P Code 8617 Structural Civil Penalties.

Violations; Suspension of Right to Work or Fine; Notice and Hearing; Appeal; Finality and Effect of Action.

(a) The board or county agricultural commissioners, when acting pursuant to section 8616.4, may suspend the right of a structural pest control licensee or registered company to work in a county for up to three working days or levee a fine up to five hundred dollars ($500) for each violation of this chapter, or any regulations adopted pursuant to this chapter; or Chapter 2 (commencing with section 12751); or Chapter 3 (commencing with section 14001); or Chapter 3.5 (commencing with section 14101); or Chapter 7 (commencing with section 15201) of Division 7 of the Food and Agricultural Code; or any regulations adopted pursuant to those chapters, relating to economic poisons.....

Enforce Division 6 (*which deals with licensing and certification)* and regulations pursuant to it.

CFAC 11501.5

The director, and the commissioner of each county under the direction and supervision of the director, shall enforce this division and the regulations which are issued pursuant to it.

CFAC 11896 Cease and Desist Order - Director.

The director, upon a finding that the use, handling, delivery, or sale of an economic poison in violation of any provision of this division, or any regulation issued pursuant to it, is taking place, or appears imminent, and such activity if allowed to proceed will present an immediate hazard or cause irreparable damage, may issue an order to the person(s) responsible for such activity to cease and desist from further commission of such violation.

CFAC 11897 Cease and Desist Order - Commissioner.

The agricultural commissioner, upon a finding that the use, handling, delivery, or sale of an economic poison in violation of any provision of this division, or any regulation issued pursuant to it, is taking place, or appears imminent, and such activity if allowed to proceed will present an immediate hazard or cause irreparable damage, may issue an order to the person(s) responsible for such activity to cease and desist from further commission of such violation.....

CFAC 12601 Produce Seizure.

The director may seize and hold any lot of produce, or any unharvested produce that is within one week of being in a harvestable condition, which carries, or is suspected of carrying, pesticide residue or other added deleterious ingredients in violation of this chapter or any regulation adopted pursuant to this chapter.

CFAC 12672 Stop Harvest Order for Violation of a Pre-Harvest Interval.

The director or commissioner may prohibit the harvest of any produce, or may seize and hold any lot of produce when a preharvest interval specified in the registered labeling of a pesticide applied to the produce has not been complied with. Except as provided in section 12673, this harvest prohibition shall not extend beyond the expiration of the preharvest interval. Lots of produce so seized shall be held until the preharvest interval has expired and the director has determined that any pesticide residue is within a permissible tolerance.

CFAC 1267 Stop Harvest Order for Excess Residue.

The director or commissioner may prohibit the harvest of any produce that carries pesticide residue in excess of a permissible tolerance which is established by the director pursuant to this chapter.

3CCR 6706 Prohibit Worker Entry If Conditions Are Unsafe.

Hazardous Areas:

When there is a reasonable suspicion by the director or commissioner that a specific workplace has been, or may be, unsafe for workers due to exposure to active or inert ingredients in pesticide products, or breakdown products of these ingredients, the director or commissioner may require the employer to prohibit entry of employees into that workplace. The director or commissioner may require the employer to provide medical supervision for the period of time necessary for the director to determine the safety of the workplace to protect employees who have been working in, or will enter, that workplace. This medical supervision may include biological monitoring of persons for possible over-exposure to pesticide product ingredients or breakdown products of these ingredients. The director or commissioner may also specify exposure time limits and protective clothing and equipment to be worn by employees under these circumstances.

DPR Policy

DPR's policy is to conduct investigations of ***all*** *complaints that come to the attention of DPR or the commissioner alleging misuse of pesticides or pesticide damage or injury to crops, property, human or animal health, or the environment. The Agricultural Commissioner's Office is the lead agency in consultation with DPR.*

Note that investigations of anti-microbials and dermatitis cases may be conducted over the telephone; nevertheless, these episodes are still investigated.

TYPES OF EPISODES

There are three types of episodes, although some may show elements of more than one type. These are: Human Effects; Property Damage or Loss; and Environmental Effects. Also, pesticide-related episodes may or may not be Priority Episodes.

The priority investigation effects criteria are:

Human Effects

Death (including suicide); serious illness or injury (24-hour hospitalization with treatment); or any single episode involving five or more persons with symptoms who have sought medical attention.

Environmental Effects

Water: Contamination of the drinking water supply affecting 10 or more households.

Air: Contamination of air requiring official evacuation of 25 or more people.

Land: Clean-up or decontamination costs to restore the area to normal uses exceeding $50,000.

Birds (nontarget): Fifty or more game or migratory birds; 500 or more other birds.

Fish (nontarget): Five hundred or more game fish; 5,000 or more other fish.

Endangered species: One or more of any endangered vertebrate species.

Other animal (nontarget): Five or more of any game animals or fur-bearers.

Property Loss: Loss of plants, livestock, or other property due to damage or overtolerance exceeding $50,000; estimate to be made or confirmed by investigating party.

The U.S. EPA/DPR/CAC Cooperative Agreement concerning priority investigations of episodes that appear to meet the criteria is not affected by the distinction between use-related and nonuse-related episodes. These episodes are reported to U.S. EPA no matter which agency has lead investigative responsibility. DPR will assign a Priority Identification Number and handle transmittal of the report to other agencies with responsibility in the area. These episodes should be viewed as an opportunity to examine the functioning of the entire regulatory process. These are cases that are more likely to attract media, public, and legislative attention.

Procedures taken for a priority episode: DPR is notified immediately. A Priority Investigation Number is issued and a memo is written by the DPR Senior Pesticide Use Specialist. These investigations should be completed within 30 days. All available medical records are required. Your Senior Pesticide Use Specialist has to submit a 7-day initial report; and 30-day, 60-day, and 90-day letters to the appropriate county. The Senior Pesticide Use Specialist also sends a closing letter to U.S. EPA summarizing the county agricultural commissioner report.

For the WH&S policy on human deaths, refer to WHS 94-5 entitled, "Protocol for Collection of Samples During Investigation of Agricultural Fatalities." This is in the appendix. Your local coroner should also have this information.

PLANNING

Now that you know: it is a pesticide-related episode; the type of episode; it is within policy; and it is in your authority to investigate, you must create a plan. Your plan should include a list of people to interview; the types of samples, and therefore a list of equipment you will need; the types of record audits you will need to make; and a list of documents you will need to gather. A good start is to gather the permit, Notice of Intent (NOI), and Pesticide Use Reports for the particular application.

Begin by asking the five "W" questions.

- What happened?
- Where did it happen?
- When did it happen?
- Who did it?
- Why did it happen?

EVIDENCE AND SUPPORTING DOCUMENTS

Sample results, direct testimony, and records are evidence; while statements, diagrams, photographs, and your report are supporting documentation. You should consider what kind of statements, records, samples, diagrams, photographs, and notes you will need to ensure a thorough investigation. The interview and statement may be the most important aspect of the investigation, as there are often no signs of physical evidence remaining by the time DPR is informed of the incident.

Statements and Interviews

The purpose of an interview is to gather information or evidence. The spoken word is conceivably the largest source of evidence available to an investigator. "Eye-witness" testimony of an incident, by an individual who personally experienced an incident, is direct evidence.

Plan for the interview in advance by identifying the people you want to interview and organizing the questions you want answered. If possible, you should look at the site of the incident, or a diagram of it, before the interviews. When conducting interviews outdoors, use a private setting and minimize distractions such as traffic noise or interruptions from others. Indoor interviews should be free of physical barriers, such as large desks between you and the interviewee.

Set the scene for your interviews carefully. It is not an adversarial role. Do what you can to make the subject at ease and comfortable. Be friendly, try to establish a rapport with the individuals you are interviewing. Sitting, rather than standing, helps to make people comfortable and more willing to talk. Take time to explain the dual purpose of your report; to gather facts for possible legal action; and to help WH&S evaluate the pesticide involved and regulations overall. This impresses the interviewee with the significance of the situation.

First, interview those who will voluntarily give the most complete account for an early overall insight. Last, question hostile witnesses and suspects, taking the easiest suspects first. The sequence of interviewing is essential in order to find out what happened. It helps to do the easy ones first. Sometimes it is necessary to revisit a subject in order to clarify what really happened between two individuals' accounts of the same incident.

Introduce yourself by full name, title, and affiliation. Tell the interviewee the purpose of the conversation. Questions should be singular; open-ended; simple; and free from jargon, technical terms, or codes which may not be understood. Maintain a patient demeanor; add pauses throughout the interview.

Three-Phase Interviews

Explain how you are going to proceed with the three-phase interview technique so that the subject is ready to repeat the story.

Phase one: The subject tells the story, and you, the investigator, do not take notes; however, do ask questions to clarify any ambiguities and gaps in the information.

Phase two: The subject again tells the story while you take notes. The subject should be more relaxed by now. Indicate the date, time, and location as a first entry in your field notes. It is a good time to gather the minimum identifying information. Again, ask questions to clarify and complete the story.

Phase three: You read your notes back to the subject asking for additions and corrections. This allows the subject to add details, or to correct mistakes or misunderstandings which may have arisen.

Leave the interviewee with the impression that a follow-up interview may be necessary. Check the telephone number where he/she can be reached. A suggested list of questions for a variety of scenarios is in the appendix of this manual.

Interviews establish who can testify to what at a possible hearing. The Three-Phase Method brings out more specific information. The more detailed the information on exposure and symptoms means the better WH&S is able to determine the relationship between illness and exposure.

Interpreters

A bilingual investigator is the best option; but barring that, use independent interpreters wherever possible rather than someone from within the organization being investigated. If you are not fluent in a person's language, do not wing it. Ideally, an interpreter is objective, professional, and knowledgeable of pesticides.

RECORDS

We can break records into two groups: (1) those required by law; and (2) those generated in the normal course of business. You have the authority to collect both types of records.

Records Required by Law

These include records required by law, other than the Food and Agricultural Code; and records kept in the normal course of business. In obtaining records, such as the invoice of a pesticide sale, it is important that the investigator not talk freely about the purpose of the evidence and the investigator should remember that there is the presumption of innocence.

3CCR 6778 Growers REI records - ReEntry Interval records.

(a) A record of each pesticide application involving the crops and pesticides for which there are reentry intervals that exceed the "spray is dry/dust is settled" requirement shall be maintained by the operator of the property for two years from the time of application, and shall be readily available for inspection and copying by the director or commissioner.....

3CCR 6619 Pesticide Application Completion Notice.

(a) In addition to the notice required pursuant to section 6618, an agricultural pest control business applying pesticides for the production of an agricultural commodity shall give notice to the operator of the property treated (or the operator's designated employee), within 24 hours of completion of the pesticide application.....

Records Kept in the Normal Course of Business

These records include inventory control records, weight tickets, bills of lading, and credit invoices. The credit invoice refers to the document used to show that pesticides were returned to the dealer which is evidence that they were NOT used.

SAMPLES

Here are a few pointers for you when sampling:

(1) Diagram the sampling area. You are familiar with the pattern used and the area in general, but others do not have this specific information. A diagram helps fix the pattern in their mind.

(2) Prevent cross contamination and, where necessary, as with swab samples, use a control sample.

(3) Package and identify samples properly. Carefully preserve the chain of custody and keep your samples in a safe place at all times.

For more detailed information, consult the **Investigative Sampling Techniques Manual**. The particular circumstances of the investigation will dictate the most appropriate sample types and pattern of samples such as individual, gradient, or grid. You need to plan for the type of sampling tools and equipment to take along with you.

The following suggested protocol should help avoid delays and improve tracking samples. Where possible, consult with your senior or the district office supervisor before taking samples in order to discuss the sampling strategy to be used, and to identify any possible laboratory problems.

If prior contact is not possible, follow the **Investigative Sampling Techniques Manual** as closely as possible. Contact your senior or the district office supervisor prior to shipping the samples in order to determine which laboratory will perform the analyses.

Be prepared to provide the following information when you call the laboratory where you plan to send samples:

a) The number and type of samples.
b) The pesticides for which analyses are being requested.

c) The circumstances of the investigation such as illness, injury, or damage involved; or alleged any relevant factors and the enforcement potential.

Prior to shipping the samples, please fax the data sheets and a map or sketch showing the sample sites. Please write the date sent and the destination lab on the data sheets.

DIAGRAMS AND PHOTOGRAPHIC EVIDENCE

Diagrams and photographs may directly present evidence of an illegal situation. It helps others who have not visited the episode site to be able to visualize the situation if there are graphic images presented. These two forms of evidence are not used as extensively as they could be.

Consider recording the following information on the episode diagram.

(1) The episode site; the treatment site; landmarks, such as buildings and roads; crops and their acreages; the location of witnesses; sample sites and numbers; and the site and direction of photographs. Diagrams should, of course, include some indication of dimensions and the orientation -- north is usually up.

(2) Other useful information such as row orientation in the field; wind direction; application pattern; and direction. Remember that the person reading your report may not be familiar with the situation. Visual aids are a great help in understanding local conditions.

(3) Investigators should use well-thought out photos to show evidence of drift and damage. Photos should be labeled with the date and photographer's ID. You should add the orientation of the photo such as "looking north from the barn." A brief description of what is shown, for example, "The area of heaviest damage," is helpful too. A photo mount form is in the appendix.

FIELD NOTES

Your field notes have great value because they were made at the time of the inquiry. They also record the actual words used by the witnesses. They are the basis for your report or case file. The investigator's episode report is only as good as the field notes taken at the time of the episode. There is typically an extended time lapse between the investigation and the enforcement action, partly because of the requirements of due process. Once the final report is completed, it is recommended that personal notes are destroyed.

It is best to structure your notes in a chronological order. Entries should begin by identifying the subject matter, date, time, and location of the activity. Other vital information may include names and titles of the victims, witnesses and suspects; a description of the episode site; weather conditions; and location and type of samples collected, including the chain of custody. Using a chronological format will facilitate composition of the narrative report by allowing the investigator to simply expand the field notes.

Both your notes and your report are public documents. Any differences, no matter how subtle, may be used to discredit the case. For this reason, after you are sure that the report is complete, has been finalized, and accepted by the commissioner, it is wise to destroy your notes.

ANALYSIS

Before writing the report, you should go through this analytical process to make sure the evidence supports your hypothesis. Are you sure of the facts of the situation? Make an hypothesis. What do you think happened? If the evidence substantiates your hypothesis, then accept it. If the evidence only partially substantiates your hypothesis, then modify it. If, on the other hand, the evidence contradicts your hypothesis, then you must reject it and form another.

VIOLATIONS

Now you must decide if there was a violation, and if so, which section or sections are most appropriate. A good source of citable sections is the **Hearing Officer Sourcebook**. It is a good idea to be familiar with the hearing process so that you can write your report with it in mind. Does the evidence support the violation? To help you determine that the section has, in fact, been violated, go through the exercise of breaking it into its elements. There is a good example of this exercise in the **Hearing Officer Sourcebook**. The major point being that the action (alleged) to be illegal must meet ALL the elements.

Faulty thinking results when an action seems to fit the section when, in fact, it does not meet ALL the elements or criteria.

For example, shown below is text from CFAC 12973. There are several ways of breaking a section into its elements. Some people are more apt to break it into separate phrases, while others break it into concepts.

CFAC 12973

> *The use of any pesticide shall not conflict with labeling registered pursuant to this chapter which is delivered with the pesticide or with any additional limitations applicable to the conditions of any permit issued by the director or commissioner.*

Broken into its elements, the section looks like this.

1. There was use of a substance. No drift or spill, but actual use.
2. The substance is a pesticide.
3. The use was not allowed by the label on the product, at the time of the use.
4. The label on the product was registered in California at the time of the use.
5. The label at issue is the one the user received with the pesticide.

If all these elements are all satisfied, then there is a violation.

The elements to test if the act was a violation of a permit condition follow:

1. There was use of a substance.
2. The substance is a pesticide.
3. The use was prohibited by a permit in force at the time of the use.

If all these elements are satisfied, then there is a violation.

REPORT

It is important to fully and correctly identify the players. Remember that enforcement action is not the only function of your report. It is also used by WH&S to evaluate the pesticide in question, and regulations in general.

The report should include:

1. A brief summary of the episode.
2. Defendant data.
3. Victim data.
4. Witness data.
5. Summary of the violations.
6. Code sections.
7. Documents gathered.
8. Samples taken.
9. Narrative of the investigation.
10. Pesticide label(s).
11. An appendix or table of contents

The information you should have for each person involved in the case must include name, address, phone, occupation or relationship to the defendants, their statement and the testimony, if any, they will give.

ENFORCEMENT ACTION

Enforcement Guidelines determine the type of action to follow your report. Typically, this decision is made at a level higher than the investigator. Levels of enforcement action start at a reinspection and proceed through office hearings, Agricultural or Structural Civil Penalties, license or registration suspension or revocation, to action in criminal or civil court.

APPENDIX

SUPPORTING EVIDENCE CHECKLIST

Inspector's Name:_____ Track #_____

Name of Complainant/Injured_____ Respondent_____

	Formal Complaint
	Formal Written statement
	Doctor's First Report
	Medical release Authorization
	Medical Records
	Maps (Including an indication of north and a key)
	Photographs (Including who took the picture, when, what direction)
	Method of sample procedures
	Laboratory Requests for Analysis
	A complete copy of the pesticide label
	MSDS
	Employee Pesticide Training Records
	Use reports
	Recommendation
	Issuance page (Permit, OIN, PCO, SPCO, MG)
	Recent Inspection Reports
	Current Headquarters Inspection
	Technical information excerpts
	Overtolerance transmittal
	Reviewed by:

REQUEST FOR CHANGE OF ADDRESS OF BOXHOLDER INFORMATION NEEDED FOR SERVICE OF LEGAL PROCESS.

Postmaster:_____ Date:_____
Name and Address (City, State, Zip Code)

Request for change of address of boxholder information needed for service of legal process. Please furnish the new address, or the name and street address (if a boxholder), for the following:
Name:_____
Address:_____
NOTE: The name and last known address are required for change of address information. The name, if known, and post office box address are required for boxholder information.

The following information is provided in accordance with 39 CFR 265.6(d)(6)(ii). There is no fee for providing boxholder information. The fee for providing change of address information is waived in accordance with 39 CFR 265.6(d)(1) and (2) and corresponding Administrative Support Manual 35244 a and b.

1. Capacity of requester (e.g., process server, attorney, party representing himself).
_____
2. Statute or regulation that empowers me to serve process (not required when requester is an attorney or a party acting pro se -- except that a corporation acting pro se must cite statute).
_____
3. The names of all known parties to the litigation.
_____
4. The court in which the case has been or will beheard.
_____
5. The docket or other identifying number if one has been issued.
_____
6. The capacity in which this individual is to be served (e.g. defendant or witness).
_____

WARNING

The submission of false information to obtain and use change of address information or boxholder information for any purpose other than the service of legal process in connection with actual or prospective litigation could result in criminal penalties, including a fine of up to $10,000 or imprisonment; or (2) to avoid payment of the fee for change of address information of not more than five (5) years, or both (Title 18 U.S.C. Section 1001).

I certify that the above information is true, and that the above information is needed and will be used solely for service of legal process in connection with actual or prospective litigation.

_____ _____
Signature of Boxholder Street Address

_____ _____
Printed Name City, State, Zip Code

PROTOCOL FOR COLLECTION OF SAMPLES DURING INVESTIGATION OF AGRICULTURAL FATALITIES

Because agricultural fatalities, regardless of particular circumstances, frequently give rise to concern about pesticide exposure, it is appropriate to collect the following samples routinely for any fatality related to agricultural employment.

1. RBC and serum (or plasma) cholinesterase to identify the presence of cholinesterase inhibition. Cholinesterase is stable post-mortem for a considerable period of time, but may be inhibited by sodium fluoride. It is preferable to collect the blood in a heparinized tube.

2. A separate serum sample should also be collected and stored for further analysis of other compounds (e.g., blood bromide levels).

3. Urine for pesticide metabolites: alkyl phosphates and leaving groups (trichloropyridinol and paranitrophenol). Active ingredients may show up in the urine following massive exposure, and it may be possible to identify the compound involved from the urine sample. Sample may be stored frozen until analysis.

4. Skin wipe samples from face, trunk, and extremities using a 4x4 cotton swab soaked in isopropyl alcohol or a commercial "baby wipe."

5. A sample of stomach contents (50 cc) along with an estimate of total volume of stomach contents.

6. Tissue samples are not routinely practical. However, tissues of interest would include liver and kidney for metabolite and active ingredient analysis, as well as brain tissue for cholinesterase activity.

The Pacific Toxicology Laboratory in Los Angeles (310) 479-4911 can do most of the above analyses. The worker safety laboratory in Sacramento can do urine metabolites and analysis of swab samples, and stomach contents for active ingredients if desired. Samples shipped to this laboratory are customarily shipped by way of the Agricultural Department in each county. For further inquiries or information, please contact Dr. Michael O'Malley at (916) 445-4281 during office hours, or by pager (916) 523-3049 after hours. DPR routinely conducts surveillance on pesticide-related illnesses and fatalities, so you need to notify the Worker Health and Safety Branch to report the autopsy findings on relevant cases. Their telephone number is (916) 445-4222; their Facsimile (Fax) number is (916) 445-4280.

This is an interim protocol published by the Department of Pesticide Regulation, Worker Health and Safety Branch, for the benefit of coroners.

U.S. FDA INFORMATION NEEDS

The U.S. Food and Drug Administration (U.S. FDA) requires the following information within 3 to 5 days after initial notification of illegal residues:

1. Map of field -- potential drainage or unintentional ground application probabilities.
2. Wind directions -- potential overspray from adjacent fields.
3. Crop history -- the previous crops grown in the field and surrounding fields.
4. Spray history of the crop -- date(s) of spray; and what chemical(s) were used.
5. Names and addresses of the applicator and pest control adviser.
6. Did the grower directly apply the illegal pesticide?
7. Have there been any unusual floods or weather recently?
8. Spray history of fields surrounding the area.
9. Information on field samples that are collected.
10. Copies of the Request for Analysis sheets.

In order for U.S. FDA to seize any interstate shipments of produce with illegal residues, they must file legal papers with the U.S. court, and obtain a warrant. In order to do this, they must go through their headquarters office in Washington, D.C. The U.S. FDA headquarters will not proceed with seizure orders unless they have the required field information.

The 3- to 5-day time requirement is based on the time it takes for a lot of produce with an illegal residue to travel across the country to its destination. Since the U.S. FDA does not have quarantine authority, it is critical that they receive the required field information as quickly as possible. As a result, we need to keep the U.S. FDA advised of developments in our field investigations as they occur.

INTERVIEW QUESTIONS FOR EXPOSURES AND ILLNESSES

PESTICIDE HANDLER (EMPLOYEE)

Record the name of the interviewer, date, time, and location. The name, address, age, gender, telephone number, and work activity of the interviewee also needs to be recorded.

1. Who is your employer?
2. How long have you been working as a pesticide handler?
3. What pesticide(s) were you handling?
4. Where did the exposure occur?
5. When did the exposure occur?
6. How did the exposure occur? Was it dermal or ingestion?
7. Were you eating or smoking at any time during your activities?
8. What did you do after you were exposed to the pesticide?
9. Were you working alone when the exposure occurred?
10. Was anyone else with you? Were they exposed?
11. Did you notify anyone of the exposure? Who?
12. What were the weather conditions?
13. What type of application equipment were you using?
14. What personal protective equipment (PPE) were you given?
15. What PPE were you wearing?
16. Who maintains the PPEs and how often are they inspected?
17. Are clean clothes provided and worn every day?
18. Did you have access to soap, water, and towels at the work site?
19. Do you know what emergency medical posting means?
20. Do you know what medical supervision means?
21. Describe the pesticide training and instruction you have received?
22. Who gave you the training?
23. Was the training specific to each pesticide you handle?
24. Did you review and sign your training records?
25. How often are you supervised?

Obtain a two-week work history from the employee, commencing one week before the exposure if still working; two weeks before the exposure if working ceased at the time of exposure.

PESTICIDE HANDLER -- EMPLOYER

Record the name of the interviewer, date, time and location. The name, address, age, gender, telephone number, and work activity of the interviewee also needs to be recorded.

1. Identify the person, company name, address, telephone number, and type of license or certificate.
2. Who is responsible for the supervision of the employee(s)?
3. Were you notified of the exposure to the employee(s)? When? By whom?
4. Where did the exposure occur?
5. When did the exposure occur?
6. What did you do after the exposure occurred?
7. What personal protective equipment do you keep on hand? What personal protective equipment was provided to the employee(s)?
8. How do you make sure that the employee(s) wear their personal protective equipment?
9. Describe your personal protective equipment maintenance program.
10. How do you make sure that your application equipment is in good repair and safe to operate?
11. Do you provide a change area for your employee(s)?
12. Is clean clothing provided to and worn by your employee(s) daily?
13. Do you provide soap, water, and towels at the work site?
14. Who trained the employee(s)?
15. Describe your pesticide training program?
16. Describe your medical supervision program?
17. Describe your emergency medical care program.
18. What procedures do you follow if an employee(s) is exposed, ill or injured?

Reviewing training and medical records during the interview may cause distractions. Close your interview with the employer before you begin your review of the documented training and medical supervision records.

FLAGGER

Record the name of the interviewer, date, time, and location. The name, address, age, gender, telephone number, and work activity of the interviewee also needs to be recorded.

1. Who is your employer? Who is your supervisor?
2. How long have you been working as a flagger?
3. At the time of exposure, did you know what pesticides were being applied?
4. Who was making the application?
5. Where did the exposure occur? When did it occur?
6. How did the exposure occur?
7. What was your location?
8. What was the distance between you and the applicator?
9. When did you first experience contact with the pesticide? Describe what you felt, tasted, saw, and smelled during this experience.
10. What did you do after you were exposed?
11. What were the weather conditions at the time of the exposure? Did they change during the application?
12. Was anyone else working with you when the exposure occurred?
13. Were they exposed?
14. Do you know of anyone else who was exposed?
15. Did you notify anyone of the exposure? If so, who was notified?
16. What personal protective equipment were you provided?
17. What personal protective equipment were you wearing?
18. Who maintains the personal protective equipment? How often is it maintained, checked, or repaired?
19. Is clean clothing provided to you and worn daily?
20. Were soap, water, and towels available to you at the worksite?
21. Can you describe the training and instruction you have received?
22. Who provided the training?
23. Did you review and sign your training records?
24. Do you know what emergency medical care posting means?
25. Do you know what medical supervision means?

Obtain a two-week work history from the flagger, commencing one week before the exposure if no work time was lost; two weeks before the exposure if work time was lost as a result of the exposure.

FIELD WORKER EXPOSURE TO DRIFT

Record the name of the interviewer, and the date, time, and location of the interview. The name, address, age, gender, telephone number, and work activity of the interviewee also needs to be recorded.

1. Who is your employer?
2. How did your exposure or illness occur?
3. What were your work activities the day you were exposed or became ill?
4. Where were you when the exposure occurred?
5. When did the exposure occur?
6. Describe what was happening in the area around you.
7. Describe the weather conditions on that day?
8. Did you notice an application of pesticides?
9. When did you notice it?
10. Describe the application equipment -- plane, helicopter, ground rig, tractor etc.
11. How far were you from the application?
12. When did you first experience contact with the pesticide? Describe what you smelled, saw, felt, and tasted during this experience.
13. When did you start feeling ill?
14. What were your symptoms?
15. Have you felt that way before? When?
16. How long did you have the symptoms?
17. Did you tell your supervisor that you felt ill? When?
18. Did you go to the doctor or the hospital?
19. When did you see the doctor?
20. How did you get to the doctor or hospital?
21. Was anyone else working near you?
22. Were they exposed? Did they feel ill?
23. Did they see a doctor or go to the hospital?
24. How long were you ill?
25. Were you unable to come to work? If not, how many days did you lose?

Obtain a two-week work history from the employee, commencing one week before the exposure if still working; two weeks before the exposure if working has ceased since the exposure.

FIELD WORKER EXPOSURE TO PESTICIDE RESIDUE

Record the name of the interviewer, and the date, time and location of the interview. The name, address, age, gender, telephone number, and work activity of the interviewee must also be recorded.

1. Who is your employer?
2. How did your exposure or illness occur?
3. When did you first notice the pesticide exposure or feel sick?
4. What were your work activities the day you were exposed?
5. How many fields did you work in the day you were exposed?
6. How did you get to the field(s)? (i.e., drove yourself or rode with another employee.)
7. Describe the weather conditions on that day.
8. Did you smell or taste anything unusual?
9. What did it smell or taste like?
10. When did you start feeling sick?
11. Where were you when you started feeling sick?
12. What were your symptoms?
13. How long did you have the symptoms?
14. Have you felt these same symptoms before when working in this kind of crop? If so, when?
15. Did anyone else in your household have the same symptoms?
16. Did you shower when you finished work that day?
17. Did you put on clean clothes when you finished work that day?
18. How many people are in your work crew?
19. Did anyone else have symptoms?
20. Did you tell your supervisor that you felt ill? When?
21. Did you go to the doctor or the hospital?
22. How did you get to the doctor or hospital?
23. What was the size of the crop in the field where you were working?
24. Were any fields you worked in posted?
25. Where were the signs located?
26. Were there any signs posted in adjacent fields?
27. Were you unable to come to work? If so, how many days did you miss?
28. Did you eat or drink anything unusual on the day when you first had the symptoms?
29. Did you drink water from the irrigation valves?
30. Are you sensitive to any chemicals? If so, which ones?

If the fields where the exposure occurred are known:

31. When did you enter the field?
32. Where did you enter the field?
33. Where in the field did you begin working?
34. How long were you working in the field?
35. Did you enter the field after you saw the posted signs?
36. Did someone tell you to enter the posted field?

Obtain a two-week work history from the employee, commencing one week before the exposure if still working; two weeks before the exposure if working has ceased since the exposure.

PRIVATE CITIZEN EXPOSURE TO DRIFT

1. When did the exposure occur?
2. Where did the exposure occur?
3. Did you smell, see, taste, or feel anything unusual after exposure?
4. What did it smell, taste, or feel like?
5. Did you see any pesticide application taking place nearby?
6. Where did the application occur?
7. What was the distance between you and the application?
8. Describe the application equipment?
9. Describe the weather conditions on that day?
10. When did you start feeling sick?
11. What were your symptoms?
12. How long did your symptoms last?
13. Did you seek medical attention? Where? When?
14. Did you notify anyone of the problem? Who?
15. Was anyone else exposed?
16. Did they seek medical attention?

PRIVATE CITIZEN EXPOSURE TO RESIDUE

1. When did the exposure occur?
2. Where did the exposure occur?
3. Was a pesticide application made on or near the property?
4. What pesticides were applied?
5. Who made the application?
6. When was it made?
7. Where was it made?
8. Did you smell or taste anything unusual?
9. When did you first notice the unusual smell or taste?
10. What did it smell or taste like?
11. When did you start feeling ill?
12. What were your symptoms?
13. How long did your symptoms last?
14. Did you seek medical attention? When? Where?
15. Was anyone else exposed?
16. Did you notify anyone of the problem? Who?

MEDICAL ABBREVIATIONS

TERM	ENGLISH
bilat	Bilateral(ly), both sides, symmetrical
BP	Blood Pressure
$\bar{c}$	With
CBC	Complete Blood Count
C/O	Complains of
Dx	Diagnosis
D/C	Discharge
DTR(s)	Deep Tendon Reflexes (normal is ++)
EOM(I)	Extra Ocular Muscles (Intact)
ER	Emergency Room
FB	Foreign Body
F/U	Follow Up
GI	Gastro-Intestinal
gtts	Drops
H/A	Headache
HEENT	Head, Eyes, Ears, Nose, Throat
Hx	History
IM	Intramuscular
Imp	Impression (diagnosis)
-itis	Suffix meaning "inflammation of"
IV	Intravenous
LOT	Loss of consciousness
mg	Milligrams
AND	No acute distress
NO	Normal Limits
NOR	Normal sinus rhythm (normal heartbeat)
OD	Right eye
OS	Left eye
OF	Both eyes
P	Pulse
PE	Physical exam
PERRLA	Pupils equal, round, reactive, to light and accommodation (normal status)
PMD	Private physician
PRN	As needed
R/O	Rule out (indicating one possible diagnosis, probably the most serious; not necessarily the most likely)
ROM	Range of motion

TERM	ENGLISH
RSR	Regular sinus rhythm (normal heartbeat)
RTC	Return to clinic
Rx	Prescription
$\bar{s}$	Without
SOB	Short of breath
S/P	Status post (indicates historical condition; no indication regarding present pathology)
Sx	Symptoms
T	Temperature
Tx	Treatment
URI	Upper respiratory infection
VA	Visual acuity
WDWN	Well developed, well nourished
WNL	Within normal limits
w/o	Without

Terms Relating to Rashes

Macular	Spots
Papular	Pimples
Bullous (bullae)	Blisters
Miliary	"Prickles" (like (red) flour)
Erythmatous	Red
Edematous	Swollen
Confluent	Running together
Pruritic	Itchy
Punctate	Dot-like
Petechiae	Dots
Urticaria	Hives

Terms Describing Anatomical Locations.

Proximal	Near (the trunk)
Distal	Far (out the limbs)
Medial	Toward the midline
Lateral	Toward the side
Dorsal	Back
Ventral	Front
Plantar	Sole (vs dorsum of foot)

TERM	ENGLISH
Radial-ulnar	Thumb side - pinky side
Antecubital	In front of the elbow
Popliteal	Behind the knee

A Few Symbols.

ⓦ	Murmur
♂	Male
♀	Female
++	Normal intensity
⊖	Absent
+, ↓	Reduced
+++, ___, ↑	Increased

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PROHIBIT HARVEST ORDERS -- PREHARVEST INTERVAL

Preharvest Interval Violation

On county letterhead.

PROHIBIT HARVEST ORDER
(date)

You are hereby notified that pursuant to section 12672 of the California Food and Agriculture Code, the Agricultural Commissioner prohibits the harvest of any (COMMODITY) from (LOCATION), due to a violation of the preharvest interval specified in the registered labeling of (PESTICIDE(S)) which was applied to this crop on (DATE).

The preharvest interval for (PESTICIDE(S)) on (COMMODITY) is (NUMBER) days.

Upon expiration of the preharvest interval, (DATE OF EXPIRATION), you will be permitted to continue the harvest of (COMMODITY), from (LOCATION).

Grower_____ Agricultural Commissioner_____

Date_____ By_____

Date_____

Original - County Files
Copy - Grower / Person Notified
Copy - CDPR

PROHIBIT HARVEST ORDER -- ILLEGAL RESIDUE

Illegal Residue Violation

On county letterhead.

PROHIBIT HARVEST ORDER
(date)

You are hereby notified that pursuant to section 12673 of the California Food and Agriculture Code, the Agricultural Commissioner prohibits the harvest of any (COMMODITY) from (LOCATION), due to the presence of the (PESTICIDE(S)) residues in excess of the permissible tolerance, which is established by the Director.

The tolerance for (PESTICIDE(S)) on (COMMODITY) is (NUMBER) ppm.

(COMMODITY) from (LOCATION) sampled by our Department, showed (NUMBER) ppm of (PESTICIDE(S)).

Reference: CDFA Laboratory Analysis Number (NUMBER).

Grower_____ Agricultural Commissioner_____

Date_____ By_____

Date_____

Original - County Files
Copy - Grower / Person Notified
Copy - CDPR

COMMUNICATIONS PROTOCOL FOR INVESTIGATIVE SAMPLING

The following suggested protocol should help avoid delays and improve tracking samples. Where possible, consult with your senior or the district office supervisor before taking samples in order to discuss the sampling strategy to be used, and to identify any possible laboratory problems.

If prior contact is not possible, follow the **Investigative Sampling Manual** as closely as possible. Contact your senior or the district office supervisor prior to shipping the samples in order to determine which laboratory will perform the analyses.

Be prepared to provide the following information to the laboratory when you call to send samples:

a) The number and type of samples.
b) The pesticides for which analyses are being requested.
c) The circumstances of the investigation such as illness, injury, or damage involved or alleged; any relevant factors; and the enforcement potential.

Prior to shipping the samples, please fax the data sheets and a map or sketch showing the sample sites. Please write the date sent and the destination lab on the data sheets.

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INFORMATION NEEDED BY WORKER HEALTH AND SAFETY IN PESTICIDE EPISODE INVESTIGATION REPORTS

A. Interviews: Information concerning the episode should be gathered from those with knowledge of the incident. These include the employee, the supervisor, the employer, and eye witness. In episodes involving drift, structural applications, etc., information should be obtained from the applicator. In the narrative reports, specify who said what (i.e., John Doe, the ranch foreman, stated...).

B. Specific activity at the time of the exposure: Not acceptable -- Farmworker and laborer (too general). Acceptable -- irrigator and grape picker. If applying, or mixing and loading, a pesticide, specify the type of application (i.e., aerial, ground, hand).

C. How did exposure occur? Cause? Give pertinent details. Example: hose broke causing pesticide to spray on him. For applicators, mixers and loaders, and field workers: provide detailed exposure history prior to the illness, if no specific exposure incident occurred.

D. Symptoms: Do not take PIR/DFWI for granted concerning symptoms. What were the symptoms? How much time elapsed between exposure and onset of symptoms? How much time elapsed between the onset of symptoms and when the person was treated by a doctor? For group illnesses, specify the symptoms for each person involved. People in the group probably received different exposures and reactions are different. General symptoms for the group as a whole are not acceptable.

NOTE: The more specific the information on exposure and symptoms means the better we are able to determine an exposure-to-illness relationship.

E. Medical records (additional): Necessary for priority investigations. Useful, but not required, for other incidents. CHE test results can be extremely useful in determining overexposure. Include baseline values when available, or laboratory normal ranges for incidents where post-exposure CHE test results are obtained.

F. Disability (number of work days missed, if applicable; and hospitalization -- length of stay).

G. Identification of the product(s) involved: Accurate name of the product and EPA registration number are the best identifiers.

H. Description of the application: Cases involving drift or structural applications where other people are exposed, describe how the pesticide(s) were applied. Example: SPCO made a crack and crevice treatment in the kitchen using an aerosol can containing pyrethrins, and made a general carpet spray to the dining area.

I. Application equipment used: Be specific. Examples: aerosol can, hand-held sprayer, boom sprayer. Give the make and model number if possible.

J. Personal protective clothing and equipment: State what was worn at the time of the incident. Be specific. Example: goggles and gloves, long sleeved shirt, long pants, and leather boots. "As required by label" and other such statements are only acceptable when stated in conjunction with the specific equipment (i.e., ... wore rubber boots, rubber gloves, and goggles as required by the label).

K. Prior or concurrent activities: are other sources of exposure likely?

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CONVERTING ODOMETER READINGS TO ACRES

Odometer reading in tenths of a mile

	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
.1	6									
.2	13	26								
.3	19	38	58							
.4	26	51	77	102						
.5	32	64	96	128	160					
.6	38	77	115	154	192	230				
.7	45	90	134	179	224	269	314			
.8	51	102	154	205	256	307	358	410		
.9	58	115	173	230	288	346	403	461	518	
1.0	64	128	192	256	320	384	448	512	576	640

The acres are rounded to the nearest whole number. This gives an answer which is approximate, and within the accuracy level of the odemeter. The method presumes that the field is square and the terrain is flat.

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CREDITS

This **Investigative Techniques Training Manual** is authored by a working group of Senior Pesticide Use Specialists from the Enforcement Branch of the Department of Pesticide Regulation:

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We thank all those past and present employees of the Department of Pesticide Regulation who contributed material and suggestions; and to those who reviewed our work. If you have any suggestions or ideas about this training manual, please contact Mr. Don Shephard at (916) 445-3884.